

# —Standard Valves—

4052-A  
Valve

## 4052-A VALVE PENTODE.

### SPECIFICATION.

#### Cathode.

Thoriated tungsten filament.  
Constant voltage type.

#### Base.

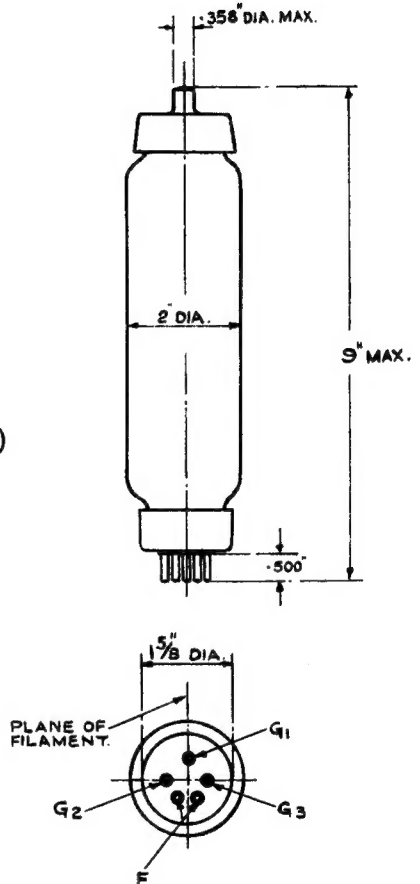
American medium 5-pin.  
Anode connected to top cap.

#### Dimensions.

Max. overall length      9" (22.9 cms.)  
Bulb diameter            2" (5.25 cms.)  
Net weight                0.48 lbs. (220 gms.)

#### Constants.

Filament voltage            7.5 volts  
Nominal filament current    3 amps.  
\*Impedance                500,000 ohms  
\*Amplification factor       1,500  
Control grid-anode  
  capacity                0.012  $\mu\mu\text{F}$ .  
Input capacity            11  $\mu\mu\text{F}$ .  
Output capacity            10  $\mu\mu\text{F}$ .  
\* at  $V_p = 1,250$  volts  $V_{g1} = -13$  volts,  
    $V_{g2} = 300$  volts  $V_{g3} = 0$



### LIMITING CONDITIONS FOR SAFE OPERATION.

Maximum direct anode voltage	1,500 volts
Maximum direct screen voltage	300 volts
Maximum direct suppressor voltage	45 volts
Maximum anode dissipation	60 watts
Maximum screen dissipation	20 watts
Maximum direct control grid current	10 mA.
Maximum RF control grid current	5 amps.

Tentative Data.

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## TYPICAL OPERATING CONDITIONS.

Class B Telephony	
Direct anode voltage	1,250 volts
Direct screen voltage	300 volts
Direct control grid voltage	—30 volts
Direct suppressor voltage	0 volts
Peak R.F. input	70 volts
Anode current	43 mA.
Screen current	15 mA.
Screen resistor	60,000 ohms
Driving power	0.5 watts
Peak output	64 watts
Carrier output	16 watts

## RADIO FREQUENCY OPERATION.

Class C Telephony — Control grid modulated	
Direct anode voltage	1,250 volts
Direct screen voltage	300 volts
Direct control grid voltage	—140 volts
Direct suppressor voltage	0 volts
Anode current	42 mA.
Screen current	10 mA.
Screen resistor	95,000 ohms
Control grid current	1.8 mA.
Peak RF input voltage ( $V_{g1}$ )	160 volts
Peak AF input volts ( $V_{g1}$ )	60 volts
AF power	0.75 watts
Peak RF input power	2 watts
Peak output	72 watts
Carrier output	18 watts

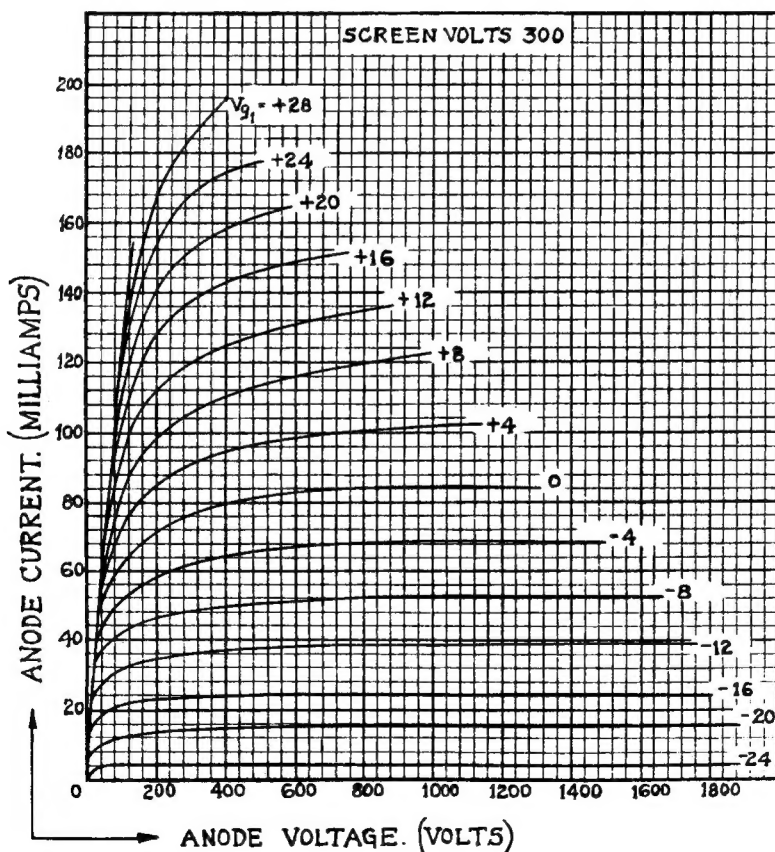
Class C Telegraphy — Unmodulated	
Direct anode voltage	1,250 volts
Direct screen voltage	300 volts
Direct control grid voltage	—100 volts
Direct suppressor voltage	0 volts
Anode current	80 mA.
Screen current	37 mA.
Screen resistor	26,000 ohms
Control grid current	5 mA.
Peak RF input volts	175 volts
RF input power	0.9 watts
Output	64 watts

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## Class C Telephony, Suppressor and Screen Modulated

	Suppressor	Screen
Direct anode voltage	1,250	1,250 volts
Direct screen voltage	300	300 volts
Direct control grid voltage	—100	—100 volts
Direct suppressor voltage	—45	—40 volts
Peak AF suppressor voltage	75	75 volts
Peak AF screen voltage	9	150 volts
Peak RF input	175	175 volts
Anode current	43	47 mA.
Screen current	36	36 mA.
Screen Resistor	25,000	25,000 ohms
Control grid current	5	5 mA.
RF input power	0.9	0.9 watts
AF power	0.3	0.8 watts
Peak output	72	84 watts
Carrier output	18	21 watts



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